

Working Platform Certificate (FPS/WPC/3)



Project Name	
Work area covered by this certificate	

(a sketch or marked up pile layout drawing may be attached to this certificate)

Part 1 – WORKING PLATFORM DESIGN

Equipment to be used on site.	Soilmec CM48/CM50/R312(CFA)	Soilmec CM70
Maximum plant loading	<u>BRE Load Case 1:</u> $q_{1k} = 144\text{kPa}$, $L_1 = 2.45\text{m}$, $W_1 = 0.7\text{ m}$. <u>BRE Load Case 2:</u> $q_{2k} = 219\text{kPa}$, $L_2 = 1.47\text{m}$, $W_2 = 0.7\text{ m}$.	<u>BRE Load Case 1:</u> $q_{1k} = 127\text{kPa}$, $L_1 = 3.82\text{m}$, $W_1 = 0.7\text{ m}$. <u>BRE Load Case 2:</u> $q_{2k} = 259\text{kPa}$, $L_2 = 2.20\text{m}$, $W_2 = 0.7\text{ m}$.

(Note: BR470 'Working Platforms for Tracked Plant: Good practice guide to the design, installation, maintenance and repair of ground-supported platforms' is available from IHS BRE Press – Tel 01344 328 038)

Designer Name	
Designer Organisation	

Part 2 - WORKING PLATFORM INSTALLATION

The working platform detailed above has been designed and installed to safely support the equipment detailed on this certificate and the limits of the platform have been clearly identified on site as necessary. The working platform will be maintained, repaired, and reinstated to the as installed condition after any excavation or damage, throughout the period when the equipment is on the site.

A completed copy of this certificate signed by an authorised person from the Principal Contractor must be given to each user of the working platform prior to commencement of any works on site in the area covered by this certificate.

Signature		Name	
Position held		Date	
Organisation		Address	

The HSE has worked closely with the FPS to develop this initiative and supports the principle of reducing accidents by the certification of properly designed, prepared and maintained working platforms



Guidance on piling platforms

1. Design

- 1.1. The stability of piling rigs and associated plant is primarily dependent upon the provision of a suitable and sufficient working platform. It must be properly designed and installed to a recognised standard. Guidance for this is provided by the BRE in a report commissioned by the FPS entitled "*Working Platforms for Tracked Plant – Good practice guide to the design, installation, maintenance and repair of ground supported platforms*".
- 1.2. Whilst the same type of rig may be operated by different companies the bearing pressures may differ due to the specific configuration of operation of the rig or modifications. The detailed bearing pressures will be provided by the piling contractor in advance of work commencing.
- 1.3. The design is extremely sensitive to the bearing pressure and type of fill used in the platform. For example changing the angle of friction of the fill from 35 degrees to 45 degrees can halve the platform thickness. It is therefore proposed that tests are performed on different fill materials in the field.
- 1.4. The working platform must be free draining to prevent the build up of water and slurry.
- 1.5. Testing of the completed platform is best carried out using plate bearing tests. The plate diameter or width must approximate the width of the track. The plate should be loaded to a pressure equivalent to the maximum design bearing pressure times the factor of safety. Typically this will be around 500kPa which on a 600mm diameter plate represents a test load of 14 tonnes. This can usually be provided by a crawler excavator.
- 1.6. The working platform must have a specified design life which starts before delivery of the piling equipment and ends on completion of all piling works. This includes load testing, integrity testing, investigation of non conformances and any remedial works.

2. Installation

- 2.1. The FPS Platform Certificate is mandatory for all sites where a piling rig or attendant plant operates. It must be signed by an authorised representative of the Principal Contractor. This merely confirms that the legal duties required under CDM have been carried out.
- 2.2. If the working platform is to be constructed or removed in phases while piling works are on going, then the extent of the platform must be clearly defined on the certificate and if necessary physically on site. This is particularly important where the piling mat is removed from an area previously made available to the piling contractor.
- 2.3. The working platform provides access for all piling plant, ancillary plant, deliveries, sub-contractors and personnel associated with the piling operations. Properly installed it will also provide suitable and safe access for following trades for the whole project.
- 2.4. One of the main causes of rig instability is a result of poor definition of the edge of the working platform. In general the working platform should extend at least 2m beyond the pile position/edge of the building. This ensures sufficient safe working area for the piling personnel and attendant plant.
- 2.5. Where access ramps are used to move between working levels these must be of sufficient gradient and width to allow the piling plant to move safely with the stability constraints of the machine. Ramps must be in a straight line between working areas. Piling rigs and cranes cannot change direction on ramps. Where a change in direction is required, this must be on a flat level platform.

3. Maintenance, repair and reinstatement

- 3.1. The working platform must be kept free draining. Water and slurry which is allowed to build up on the working platform can hide recently constructed piles, trip hazards, unstable ground and excavations. Slurry can be transferred to work equipment which increases the risk of slips on steps as well as difficult handling of work tools.
- 3.2. Obstructions encountered during the piling process will generally require excavation to remove them. This can create a 'soft spot' which can result in the rig overturning. It is important that any excavations made in the working platform are reinstated to the designed standard. This is a major root cause of piling rigs overturning.